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ABSTRACT

An interdisciplinary research study is suggested following a review of the more significant studies that have been attempted to explain the degree of educational retardation of the Mexican American as related to such factors as life stresses (e.g., economic deprivation) and learning styles. This study would be a combination of survey research (testing scores, percentages, etc. of students at given grades) and research for hypothesis testing wherein a random sample of the total Mexican American population would be used. It is noted that such a study would provide large quantities of data on sociologic, family, education, cognitive, and personality functioning and would assess the co-variation and influence of each of these variables on each of the other variables. (NQ)

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VARIABLES WHICH TEND TO AFFECT (IMPEDE OR RETARD) LEARNING OF THE MEXICAN AMERICAN STUDENT IN AMERICAN EDUCATION

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A Position Paper

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POSITION PAPER ON RESEARCH ON THE MEXICAN AMERICAN

Tentative Title:

VARIABLES WHICH TEND TO AFFECT (IMPEDE OR RETARD) LEARNING OF THE MEXICAN AMERICAN IN AMERICAN EDUCATION

By Edward J. Casavantes

I. Definition of the Problem

The Mexican American is beset with multiple problems. The average Mexican American usually exists in a milieu that embraces (a) a low socio-economic level, (b) ethnic discrimination and exclusion, (c) a language that has at times become a barrier to communication, (d) religious discrimination, and (e) a culture different from that of the majority, a social situation that produces a degree of alienation among many Mexican Americans.

One of the most obvious--and thoroughly documented--results of the combination of these often-damaging factors is an educational gap between the Mexican American and the middle-majority youth that is truly startling.

II. The State of Research in the Problem Area

The performance and achievement gap is so well-documented--even by the research usually seen as inadequate--that it is unnecessary to cite any of the smaller studies. Instead, a review of the more significant studies will be made.

The California Racial and Ethnic Survey of Public Schools (1966) shows the Mexican American with a drop-out rate twice as high as the middle-majority child; and, with a drop-out rate three times as great if the Mexican American youth happens to be enrolled in a school where there are more than 50 percent minority children.

In The Schooling Gap: Signs of Progress, by Leo Grebler, there is a great deal of documentation relative to the "gap" between the Anglo and the Mexican American in educational attainment. The average Mexican American has only an 8th grade education; he begins school at a later age; his rural counterpart does even worse; attendance at colleges and universities approach one quarter of their proportion relative to their number in the general population.

Coleman, in his massive study of education in the entire U. S., and Mayeske, with a special analysis of the Mexican American student using data from the Coleman Report, reveal reduced achievement in almost all academic areas, and in addition show that the measured gap becomes generally larger as the student progresses into the higher grades. (Okada, T.)

The New Mexico State Department of Education Guidance Services found in 1969 that Mexican Americans in that state score above Indian and Negro children in achievement tests in grades 5, 8 and 11. Nevertheless, Mexican Americans were still an average of 2.6 school grades behind in achievement (California Test of Basic Skills) relative to Anglo children.

Many other less important or minor studies can be cited. The above were quoted because they represent either more comprehensiveness or superior methodology. The uncited studies almost uniformly suffer from serious methodologic difficulties and/or sample a very limited portion of the Mexican American population. In his recently published book, Mexican Americans in School, Carter reviews some of the achievement literature relative to Mexican Americans (see especially Chapter 1).

The above studies simply document the amount or the degree of the

educational retardation. Each of the studies makes some attempt to explain the educational retardation. No rigorous explanation or documentation is known to this writer although Mercer and Mayeske come close to this by their (unpublished) analyses.

Within the last decade, the now famous Manhattan study (Life Stress and Mental Health, by Langner and Michael) has documented that much significant psychopathology arises as a consequence of some fourteen identified "Life Stresses," as they have come to call them. Some of these Life Stresses are: inability to form friendships, homes broken for any reason, chronic illnesses in either the parent or the child, family arguments, etc. Please note that one of these, and only one such "Stress," is "pure" economic deprivation (i.e., sheer poverty).

The Manhattan Study also demonstrated that the incidence of Life Stress, nevertheless, increases as one descends the socio-economic ladder. That is, although theoretically Stresses need not necessarily accompany poverty, it is clear that they do. Further, there appears to be a linear relationship between the mean incidence of Life Stress scores and the mean incidence of psychopathology.

A third general area relative to the present study is found in the research that bears on the notions of "learning styles" or "cognitive styles." A recent publication by HEW, Perspectives on Human Deprivation, summarizes research on the well-known literature on the life style (and by inference on the cognitive style) of individuals from the lower-lower socio-economic class. On page 13, the following summary appears:

> Studies of persons from lower socio-economic status families and, more recently, studies of Negro and Puerto Rican families, suggest that such factors as crowded conditions of life, absence of fathers which limits availability of mothers

> for playful activities, family emphasis on maintenance of order rather than on task orientation, lack of interest in reading or storytelling to children, limited privacy in large families, extensive dependence on peer group rather than parent-child interaction for stimulation, all impede development of a variety of cognitive functions, including the development of daydreaming as a skill. It would therefore appear that one serious handicap of the combination of poverty (or enforced urban ghetto status) with certain limitations of education, may be to prevent satisfactory development of the imaginative resources which can serve as a valuable alternative to impulsive action, poor planning, anti-social behavior, or extreme restlessness.

Along a slightly different tack, both Garber and Stodolsky and Lesser have found it probable that different ethnic groups have different perceptual-learning-cognitive styles. Garber found that the American Indian child had a tendency to give a proportionately larger number of correct responses to visual stimuli, while the Mexican youngsters tended to give a proportionately greater number of correct responses when the questions were received via the auditory channel. Garber felt that these response patterns reflected "ethnic preferences."

Stodolsky and Lesser found that, although there were substantial SES differences, due to differential social class, the profiles of the various intellectual abilities of Chinese, Jewish, Negro and Puerto Rican children were highly distinctive (i.e., unique) from each other. Should these "learning styles" or "cognitive styles" be found to be very similar and very generalized among, say, the Mexican American student population, then educational practices and curricular programs can be tailored to their specific cognitive needs.

In a laboratory experiement, Jensen was able to group bright Anglos and bright Mexican Americans, and also to group dull Anglos and dull Mexican Americans, all scores as determined by standard group IQ tests. He found that the Anglo groups (both bright and dull) performed as

expected on tests of immediate learning. However, the Mexican American youngsters responded "erratically" with some "bright" Mexican Americans not doing as well as some "bright" Anglos; with some "dull" Mexican Americans doing better than the "bright" Anglos; some "bright" and "dull" Mexican Americans doing equally well on the tests of immediate learning; and so on. The two things that could be inferred from this experiment--a classic in its field--were that the IQ tests do not measure the same capacities in Mexican Americans as they do in Anglos, and that Mexican Americans appear to have an ability for immediate learning that is essentially equivalent to that of the Anglo. Jensen suggests that the Mexican American youngsters may evidence certain "verbal mediating links" better than Anglo children. This hypothesis was tested by Rapier, who verified the increased use of "verbal mediating links," among Mexican Americans, although the exact nature of these "links" was never clearly explained.

Recently, Mercer has been able to tease out the significant variables associated with lowered IQ scores of certain California Mexican American children who had been diagnosed--some appropriately, the majority not--as mentally retarded. She found--through highly sophisticated statistical analysis--that six identified variables would account for all of the IQ loss. These six variables are: (1) The amount of education of the father; (2) the educational aspirations of the mother for her children; (3) whether the family owned or rented their home; (4) the degree of overcrowding in the home; (5) whether the head of the household was rural or urban-raised, and, (6) the amount of Spanish spoken in the home. It is of utmost importance to note that five out of the six variables are essentially characteristics usually associated with low socio-economic status for Mexican Americans. Only the sixth one,

the amount of Spanish spoken in the home, is related to Mexican American cultural uniqueness. It is a "common sense" variable that almost anyone could have identified. However, Mercer was able to also identify the amount of difficulty this variable (as well as the others) is likely to cause in the testing situation. The amount of IQ drop associated with language problems is in the order of some four or five IQ points. (This figure was extrapolated from an average of the total amount that the five variables combined will reduce the IQ scores.) Thus, if a child, theoretically, would have an IQ of 100, and there was an average Spanish-language problem, (only), the youngster might obtain an IQ measure of about 95 or even no drop at all. This four or five point figure is in surprising agreement with the figure arrived at by the late psychologist-anthropologist, Holland, who found that, on the average, the so-called language barrier of the Mexican American child on an IQ test was in the order of 4.6 points. He did this by comparing a student's bilingual verbal IQ and his English verbal IQ.

The sum and substance of these studies--some dealing with academic achievement (which is essentially verbal learning), cognitive-perceptual-learning styles, and other dealing with IQ scores--reflect a variety of findings relative to ethnic differences in cognitive processes. That is, it is clear that low socio-economic status, with all its attending attributes that affect children, takes up a highly significant amount of the variance in differential (from Anglo middle-class) scores. But, there is, additionally, evidence that unique cultural and/or language factors operate to affect the perceptual-cognitive-learning styles of Mexican American students.

Mexican American students.

Further, as is clear from other multi-variate research, there is a high likelihood that there will be an interaction between low SES and Mexican American ethnic (i.e., cultural variables that will have unique characteristics of their own.*

IV. Direction for Undertakings

The research being proposed here is a combination of survey research and research for hypothesis testing. It is survey research because it will test out the scores, percentages, ratios, etc., of students at given grades, such as 4th, 8th and 12th. (It would be even better if these could be the 3rd, 6th, 9th and 12th.) In addition, it will gather a great quantity of language, SES, sociologic, psychologic, etc., data which is very valuable in its own right. This is, then, normative data.

It is also to be used for hypothesis testing because there are many issues, as yet, not carefully documented, such as those outlined in the above review of the literature, and which arise out of tentative conclusions from that research. (See Appendix A for hyptheses proposed).

It cannot be overemphasized that only through the fathering of large quantities of data--along a half-dozen major dimensions of sociologic, family, educational, cognitive and personality functioning--can the co-variation and influence of each of these on each of the other

*The distinction between the Mexican American student as an individual rather than an emphasis on the school as an institution of influence is essentially the task of a study now under way by the U.S.Commission on Civil Rights. The USCCR Study is an extremely thorough study of the school, and is unusually broad, covering five Southwestern states. Some 500 school districts and some 1200 schools were sampled. Thus, USCCR will study the school as an institution and its influence on the Mexican American student; the present study being proposed hopes to study the child only.

variables be adequately assessed. To study only some of these variables will necessarily result in significant gaps in information which will allow an "escape valve" for possible influences of other variables which could affect the data. The simultaneous study of almost all relevant major variables results in a "closed system" and, as such, allows cause and effect conclusions to be derived with considerable assurance and reliability.

Also, the many-faceted character of the study may itself be one of its strengths, in that it is distinctly interdisciplinary. Psychiatric concerns are reflected in the projected approach to the individual's reactions in stress; psychology is represented by the study's approach to cognition and personality objectively measured; sociology and anthropology by its stress on social stratification and ethnicity; and education by its concern with possible intellectual and academic loss or defect as a function of personality, social, and/or institutional disorganization.

Neither can it be overemphasized that mere adequate testing even with adequate instruments is by itself, a futile task if the population to be tested is not a completely representative sample of the total Mexican American population (together, of course with a comparable control group of Anglo, and hopefully also Negro and Indian, youngsters. For it is only through a completely random sampling of all Mexican Americans that an accurate assessment of their attributes and their interactions be made.

Aside from the immediate results from this study--which are of a "pure" or "theoretical" nature--there are additional separate and distinct "spin-off" benefits which can be obtained. First, this data will

serve as a baseline against which certain other studies, more modest in scope, can be judged, or selected other data be compared. That is, for example, a reasonably small study in San Diego, with such-and-such findings for the local area can be compared to the findings of the proposed larger study. If the "San Diego Study" finds that three out of its five findings are comparable with the proposed large project's, then the other two findings can be seen as somewhat more "reliable," that is, they can be generalized somewhat more.

Second, there will be the benefit that, when the main study is finished, there will still remain a large quantity of data that can be given to graduate students or to universities for further "milking." It is to be hoped that this data will be especially available to young Mexican American graduate students in such areas as sociology, psychology, anthropology and education, both for basic research and for data bases for theses and dissertations. Third of the "spin-off" benefits will be that many local, state and Federal projects will be able to use this information as one of the most viable reference points on which to base program decisions, decisions which today are being made on the basis of partial findings or on superficial research, not to mention sheer opinion at times.

It may have been noted that no mention of specific measurement tools has appeared thus far. The extremely long list makes its inclusion during a discussion cumbersome. For this reason, the list is appended rather than inserted in the middle of discussion. Also, in order to best visualize the experimental design, it is necessary to make a matrix-like presentation. This partial list of tests, questionnaires, etc., appears on Appendix B.

The actual instruments are not included in this proposal. They are, of course, available upon request.

Hypothesis testing: The proposed research, if properly carried out, with adequate breadth and sampling, should yield reasonably appropriate answers to most of the following hypotheses:

Ho: Specific cognitive profiles should arise from administration of certain intelligence* instruments, differentiating Mexican Americans from Anglo, Indian, etc., youngsters' profiles. These should suggest different intellectual approaches in school arising out of ethnically unique "cognitive styles."

Ho: It should be possible to verify Mercer's contention that the drop in IQ scores is attributable (by something like 80%) to (low) social class and to the almost exclusive use of Spanish in the home (by something like 20%), if at all. By inference, this will leave the so-called "cultural factors" of Mexican Americans as reasonably "innocent by-standers," which are not in the least harmful to the development of the Mexican American youngster, or damaging to his educational achievement.

Ho: It should be possible to establish specific personality patterns for Mexican American youth. If unique personality patterns do arise, the implications from these will be intertwined with other performance results on IQ, achievement, etc.

Ho: The instrument "Choice Motivator Scale" should be able to specifically verify (or not) the Coleman contention that dependency and loss of control personality characteristics are especially relevant to the Mexican American.

Ho: It should be possible to determine the specific effect of the so-called "Life Stress Factors" on the personality-intellectual sectors of Mexican Americans, as well as on other behavior variables.

Ho: It should be possible to determine the patterns (strengths and liabilities) associated with Mexican Americans relative to their performance on "tests of immediate learning." The implications of these findings for utilization in classroom strategies are very easy to conceive, and potentially extremely important.

Ho: Determine if there are any special or unique factors relative to Mexican Americans which are associated with the unusually high drop-out (attrition) rates.

Ho: Etc.

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*The choice of a test of intellectual functioning will be made on the basis of the most prevalent paper-and-pencil test used by the schools. This "institutional" test will give baseline information on which the schools usually base certain tracking or curricular decisions for each child. The deficiencies which are known to exist in these tests for Mexican American children are acknowledged. Their use is justified by the fact the performance on these tests will be related to other variables studied to see their effect on the "test of intelligence." Recall that also to be included will be Tests of Immediate Learning, which appear to be considerably less culture-verbally loaded. These TIL's will be compared with the standard group tests.

FOR STUDY

Static Measures:

1. General Information Sheet
2. Choice motivator scale*
3. Life Stress Index
4. Health Index of Socio-Economic Class*
5. Rokeach Dogmatism Scale*
6. Wide Range Vocabulary Test
7. Guilford-Zimmerman Temperament Survey*
8. Wolfe's "Measurement of the Environment Scale"
9. Intelligence Test Commonly Used in School
10. Achievement Tests
11. Other Measures as Seen Appropriate

TESTS OF IMMEDIATE (CURRENT) PERFORMANCE			
1. Immediate Recall Test			
2. Serial Learning Test			
3. Paired-Associate Learning of Familiar Objects			
4. Paired-Associate Learning of Abstract Objects			
5. Verbal Mediation Test			
6. [Other measures as seen appropriate]			

[*--These measures will be given only when the age level is such that the subject is able to handle the concepts involved.]

AM I OR MY AGENCY INTERESTED IN BEING INCLUDED?

The U. S. Commission on Civil Rights, where I am presently employed, has as its mandate to carry out investigations and studies which have been originated from within the Commission itself. Thus, although it is technically able to carry out such an investigation as this one, it is not likely that it would, for it is somewhat outside the scope of its present operation and philosophical approach.

Personally, however, I would very much like to be associated with this type of research project. My personal professional predilections are very much within this type of work. However, it is clear that I would not be able to carry out this project as a single individual, and would require the back-up system usually associated with an institution. Under the auspices of an institution, I would very much like to be involved with this project.

One of the Regional Laboratories, especially Southwestern Cooperative Educational Laboratory, or the Los Angeles Laboratory, would be able to handle a project of this large a magnitude. Universities would also be able to do this in an adequate manner, and here I would recommend only that the university selected have a high number of Mexican American student enrollment so that from these the workers for the project can be selected.

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